Human-Computer Interaction and Information Management (HCI&IM)

NITRD Agencies: NSF, DoD Service research organizations, NIH, DARPA, NASA, AHRQ, NIST, NOAA, EPA
Other Participants: GSA, NARA

HCI&IM R&D aims to increase the benefit of computer technologies to humans, particularly the science and engineering R&D community. To that end, HCI&IM R&D invests in technologies for mapping human knowledge into computing systems, communications networks, and information systems and back to human beings, for human analysis, understanding, and use. R&D athe include: cognitive systems, data analysis in fields such as human health and the environment, information integration, multimodal and automated language translation, robotics, and user interaction technologies.

Highlights of the President's 2007 Request

Strategic Priorities Underlying This Request

homeland security, air-traffic control, emergency planning and response, health cath, space exploration, weather forecasting, and climate prediction. To advance these priorities, HCI&IM R&D is needed in:
Information accessibility, integration, and management: Next-generation methods, tools, and technologies to

heterogeneous information (e.g., science and engineering research data, Federal records). These 8apabilities will help human analysts make better use of all available information resources in the pursuit of new

Remote Sensing Information Gateway: Global Earth Observation Systems of Systems (GEOSS) demonstration project to share and integrate Earth observational data with initial applications to support air quality goals – EPA, with NASA, NIH, NOAA

Text Retrieval Conference (TREC): Continue evaluations of information-discovery technologies with tracks on Web retrieval, retrieval of documents for genomics research, question answering, personalized retrieval, and a new legal track – DTO, NIST, NSF, with NARA

Planning and Coordination Supporting Request

National workshop on information integration R&D: Identify key issues for coordinated research such as interoperability, privacy, security, and standards to advance utility of heterogeneous, multimodal information environments – NSF, AHRQ, DoD (ONR), EPA, NARA, with NIST, GSA, other HCI&IM agencies

Drug information and standards: Build system to obtain drug information with standardized definitions and in standardized formats from manufacturers, approve and transmit the information to Federal Web sites, including mapping clinical vocabularerabARA4oudind systeds to clinicalrenferenceetemihnoloyo aopatedby HHS, VAy, ang oDy; andmeta datareginstty of data standards temis –